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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,559	07/05/2001	Robert S. Daley	010299	5056

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QUALCOMM INCORPORATED  
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SAN DIEGO, CA 92121

EXAMINER
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ELALLAM, AHMED

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/20/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/20/2007.

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714

# Office Action Summary

Application No.

09/900,559

Applicant(s)

DALEY ET AL.

Examiner

AHMED ELALLAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25,27,28 and 69-87 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25,27,28 and 69-87 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This office action is responsive to Amendment filed on 12/15/2006. The Amendment has been entered. Claims 1--25, 27-28, and 69-87 are pending

### ***Claim Objections***

1. Claim 27 is objected to because of the following informalities:

Claim 27 depends from cancelled claim 26. In addition the phrase "the component" lack CLEAR antecedent basis.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-12, 17-25, 27, 73-78, 80-82, 84, 86, and 87 are rejected under 35

U.S.C. 102(e) as being anticipated by Dalal, US 2002/0093931 A1.

As to independent claims 1, and 11:

Regarding claim 1, with reference to figure 1 and 3, Dalal discloses voice over Internet (VOIP) system comprising:

Plurality of base stations 101-103 in connection with Mobile station controller (MSC) 140, (see figure 3), a plurality of mobile stations 111-114 for communicating

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between each other or to devices over the Internet 240, (the Internet implicitly connected to communication device(s), which reads on the claimed communication device), (the combination of any base station with the MSC reads on the claimed the least one infrastructure component), Dalal's mobile stations uses an over-the-air protocol different from Internet Protocol IP ((e.g., CDMA) see paragraphs [0023]-[0024], (claimed at least one infrastructure component communicating with one or more wireless devices using a wireless device over-the-air protocol different from Internet protocol (IP)), (the MSC and or Base station is interpreted as the claimed the least one logic component facilitating communication between a target wireless device and a communication device, the target wireless device not supporting IP),

Dalal further discloses undertaking functionality by the SDU (selection and distribution unit) that provides IP routing (IP router 355, figure 3) for data or voice between a mobile station ( using CDMA protocol, see above) and Internet 240, see paragraph [0043]. (Claimed transforming information in IP protocol to wireless device protocol; sending the information in wireless device protocol to the target wireless device; transforming information in wireless device protocol from the target wireless device to IP protocol; and sending the information in 1P protocol toward the communication device).

Regarding claim 11, with reference to figure1 and 3, Dalal discloses voice over Internet (VOIP) method comprising:

Plurality of base stations 101-103 in connection with Mobile station controller (MSC) 140, (see figure 3), a plurality of mobile stations 111-114 for communicating

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between each other or to devices over the Internet 240, (the Internet implicitly connected to communication device(s) for bidirectional communications between the communication device and the mobile unit), Dalal's mobile stations uses an over-the-air protocol different from Internet Protocol IP ((e.g., CDMA) see paragraphs [0023]-[0024], (claimed communicating information in IP to a wireless device not supporting IP, comprising: transforming the information in IP to an over-the-air (OTA) protocol, and transmitting the information in OTA protocol to the wireless device).

Regarding claim 12, Dalal discloses undertaking functionality by the SDU (selection and distribution unit) that provides IP routing (IP router 355, figure 3) for data or voice between a mobile station and Internet 240 (to a communication device not shown), see paragraph [0043]. (Claimed transforming information in OTA protocol from the wireless device to IP and sending the information in IP toward a communication device).

Regarding claims 2, and 76, as indicated above the mobile stations uses a code division multiple access (CDMA).

Regarding claims 3, 4, 77 and 78, as indicated above the combination of the base station and MSC of Dalal for providing an interface between the CDMA protocol and IP protocol reads on the infrastructure component is a base station (BTS) (as in claims 3 and 77) and the infrastructure component is a base station controller (BSC) (as in claims 4 and 78).

Regarding claims 5, 17, and 80 as indicated above, Dalal's mobile stations use a CDMA protocol. (Claimed the wireless device protocol is an over-the-air (OTA) voice protocol).

Regarding claims 6 and 81, Dalal discloses IP routing between the base stations and Internet, see figure 3, (claimed the logic component converts OTA protocol packets to IP packets).

Regarding claims 7, 8 and 82, Dalal implicitly and by way of symmetry has other wireless unit (communication device) connected to the Internet in the same fashion as the mobile stations connected through base stations 101-103 (figure 3). (Claimed logic component converts IP packets to OTA protocol packets).

Regarding claims 9 and 84, the CDMA wireless protocol of Dalal uses spreading and dispreading as part of the CDMA wireless communications (claimed the wireless device protocol is a spread spectrum protocol).

Regarding claims 10, and 21, as indicated above Dalal using CDMA protocol and the IP routing reads on the claimed OTA protocol voice packet has a size less than the size of an IP packet, because the packet size of the voice over IP is relatively large compared to the packet size of voices using CDMA (see for example prior art admission, specification paragraph [0006]).

Regarding claims 18, 19 and 20, as indicated above the combination of the base station and MSC of Dalal for providing an interface between the CDMA protocol and IP protocol. (Claimed converting OTA protocol packets to IP packets in claim 18 and converting IP packets to OTA protocol packets as in claim 19).

Regarding claim 73, Dalal discloses having voice and data packet communication separation at the MSC, see paragraph [0044]. (Claimed information represents digitized voice, or digital data, or digitized image data).

Regarding claims 86 and 87, Dalal routes packet to and from the Internet using IP router 355 and without using vocoder 352 (IP packets do not require vocoding and devocoding). (Claimed the infrastructure component is part of a communications infrastructure undertaking no vocoding as in claim 86 and first wireless device communicates with a second wireless device in a call, and the method includes not undertaking tandem vocoding in the call as in claim 87).

Regarding claim 74 and 75, with reference to figure 1 and 3, Dalal discloses voice over Internet (VOIP) system comprising:

Plurality of base stations 101-103 in connection with Mobile station controller (MSC) 140, (see figure 3), a plurality of mobile stations 111-114 for communicating between each other or to devices over the Internet 240, (the Internet implicitly connected to communication device(s), which reads on the claimed communication device), (the combination of any base station with the MSC reads on the claimed the least one infrastructure component), Dalal's mobile stations uses an over-the-air protocol different from Internet Protocol IP ((e.g., CDMA) see paragraphs [0023]-[0024], (claimed at least one infrastructure component communicating with one or more wireless devices using a wireless device over-the-air protocol different from Internet protocol (IP)), (the MSC and or Base station is interpreted as the claimed the

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least one logic component facilitating communication between a target wireless device and a communication device, the target wireless device not supporting IP),

Dalal further discloses undertaking functionality by the SDU (selection and distribution unit) (claimed logic component that provides IP routing (IP router 355, figure 3) for data or voice between a mobile station and Internet 240, see paragraph [0043]. (Claimed transforming information in IP protocol to wireless device protocol, sending the information in wireless device protocol to the target wireless device, transforming information in wireless device protocol from the target wireless device to IP protocol, and sending the information in IP protocol toward the communication device).

**Claims 22-25, 27:**

Regarding claim 22, with reference to figure 1 and 3, Dalal discloses voice over Internet (VOIP) method/system comprising:

Plurality of base stations 101-103 in connection with Mobile station **controller** (MSC) 140, (see figure 3), a plurality of mobile stations 111-114 for communicating between each other or to devices over the Internet 240, Dalal's mobile stations uses an over-the-air protocol different from Internet Protocol IP ((e.g., CDMA) see paragraphs [0023]-[0024], Dalal further discloses an SDU (selection and distribution unit) that provides IP routing (IP router 355, figure 3) for data or voice between a mobile station and Internet 240, see paragraph [0043].

Dalal further discloses that "controller" means any device, system or part thereof that controls at least one operation, such a device may be implemented in



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hardware, firmware or software, or some combination of at least two of the same. See paragraph [0017] (it is implicit that the hardware of Dalal and software of Dalal have executable codes, because that is needed for the implementation of the method steps by using the associated hardware and software as it is known in the art, (Claimed computer program comprising a computer-readable medium including code for causing a computer to convert information in IP from a communication system infrastructure to information in over-the-air (OTA) protocol packets to render first converted packets, codes for causing a computer to convert information in OTA protocol packets from a wireless device to IP packets to render second converted packets, and code for causing a computer to convert providing communication between the wireless device and the infrastructure using the first and second converted packets).

Regarding claim 23, as indicated above uses hardware, and software for implementing the method steps, Dalal also discloses using CDMA protocol and the IP routing (claimed OTA protocol voice packet has a size less than the size of an IP packet, because the packet size of the voice over IP is relatively large compared to the packet size of voices using CDMA, see [0017] and prior art admission, specification paragraph [0006] as an example.

Regarding claim 24, as indicated above uses hardware, and software for implementing the method steps, Dalal also discloses using CDMA protocol and the IP routing reads on the claimed OTA protocol voice packet has a size less than the size of an IP packet, because the packet size of the voice over IP is relatively large compared

to the packet size of voices using CDMA (see for example prior art admission, specification paragraph [0006].

Regarding claim 25, as indicated above the mobile stations uses a code division multiple access (CDMA).

Regarding claims 27, (as interpreted of depending from claim 22 instead of cancelled claim 26) the base station and MSC of Dalal provides for an interface between the CDMA protocol and IP protocol (claimed component is a base station or a base station controller).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13-16, 28, 69-72, 79, 83 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dalal.

Regarding claims 13 and 28, Dalal discloses all the limitations of respective base claim 11 and 22 as indicates above, except it doesn't specify associating the wireless device with an IP address based at least in part on a location of the wireless device.

However, associating a wireless device with an IP address based on at least a location of the wireless device is well known in the art. It would have been obvious to a person of skill in the art at the time the invention was made to associate the wireless

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devices of Dalal with IP addresses (for example the IP address of the associated base station) so that IP traffic from remote communication devices can be routed to the proper base station that is in communication with a specific wireless device. The advantage would be the ability to route IP traffic to closest base station in which the mobile unit is served.

Regarding claim 14, Dalal discloses having the base station and the MCS for providing communication for the mobile units. (Claimed method is undertaken by a communication system infrastructure component).

Regarding claims 15 and 16, as indicated above with regard to base claim 11, the combination of the base station and MSC of Dalal provides an interface between the CDMA protocol and IP protocol reads on the infrastructure component is a base station (BTS) (as in claim 15) the infrastructure component is an MSC, (as in claim 16).

Regarding claims 70 and 72, as indicated above, Dalal discloses the wireless device protocol being CDMA but doesn't specify the wireless protocol can be selected from a group of protocols consisting of: CDMA, WCDMA, TDMA, TD-SCDMA, UMTS.

However, these protocols are well-established standards protocols used in of wireless communications systems. It would have been obvious to a person of skill in the art at the time the invention was made to modify the method/system of Dalal to be used not only for CDMA over-the-air wireless devices but also to the existing wireless devices implementing any known standard such as WCDMA, TDMA, TD-SCDMA, UMTS so that these wireless devices can communicate over the Internet. It is also more profitable to Dalal's to be capable to provide a variety of services for a larger number of subscribers.

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Regarding claims 69, 71 and 79, Dalal discloses all the limitations of respective base claim 1 and 11 as indicates above, except it doesn't disclose the base station being a gateway for satellite communication system.

However, Examiner take official notice that gateway for satellite communications is well known in the art. Since official action is taken, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made to have a base system component of Dalal being a gateway for satellite communication so that non-IP mobile unit can communicate with remote communication devices using satellite communication system. The advantage would be the ability to provide worldwide communications between the wireless units of Dalal and any other communication device that may be reached over the satellite communication system.

Regarding claim 83, Dalal implicitly and by way of symmetry has other wireless units (communication device) connected to the Internet in the same fashion as the mobile stations connected through base stations 101-103 (figure 3).

Regarding claim 85, as indicated above Dalal using CDMA protocol and the IP routing reads on the claimed OTA protocol voice packet has a size less than the size of an IP packet, because the packet size of the voice over IP is relatively large compared to the packet size of voices using CDMA (see for example prior art admission, specification paragraph [0006]).

***Response to Arguments***

4. Applicant's arguments filed 12/15/2006 have been fully considered but they are not persuasive:

Applicants argue that Dalal does not disclose each and every one of the claimed subject matter, Specifically, Dalal does not disclose transformation of OTA protocol to or from IP protocol pointing to passage in the specification [0033] and [0041].

Examiner respectfully disagrees, in accordance with the specification, the OTA protocol (over the air) is defined is defined in the specification as CDMA as an example (see specification, paragraph [0021]-[0022]). Dalal discloses a CDMA architecture that comprises interworking function (IWF) controller 220, and an IWF unit that interfaces the CDMA architecture with Internet 240. See paragraph [0033] .The IWF is used to convert between CDMA protocol and Internet protocol as evidenced from the architecture of Dalal. Thus contrary to Applicants assertion, and given the interpretation of the claimed subject matter in light of the specification, Dalal clearly anticipates the claimed subject matter of the invention.

Examiner maintains that the rejection above is proper.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: see Form PTO-892.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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